

What is claimed is,

1 1. An elevator safety indicator apparatus for use on slip equipped oil field drilling rig elevators
2 to indicate to the driller when the slips are closed and locked in the closed position, the apparatus
3 comprising:

- 4 a) a lock enabling means, situated on the elevator, and arranged to move in sympathy with
5 the slips;
6 b) lock means situated to immobilize the lock enabling means when the slips are in at least
7 one preselected position;
8 c) a wireless signal transmitter on the elevator, responsive to the lock means, to transmit a
9 signal when the slips are locked in the preselected position; and
10 d) a receiver located on the drilling rig, remote from the elevator, arranged to receive the
11 signal and produce a visible indication that the signal has been received.

1 2. The apparatus of claim 1 wherein said lock means is movable toward the position to
2 immobilize the lock enabling means, and is biased to complete the movement, but denied the
3 completion of the movement until the slips are in the lockable position.

3. The apparatus of claim 1 wherein said preselected position includes that position that exists
when the slips are open and that position which exists when the slips are closed.

4. The apparatus of claim 1 wherein said wireless signal is a radio frequency transmission.

5. The apparatus of claim 1 wherein said wireless signal is acoustic.

6. The apparatus of claim 1 wherein said wireless signal is in the infra-red range of the
electromagnetic spectrum.

1 7. An elevator safety indicator apparatus for use on slip equipped elevators to indicate to the
2 driller when the slips are closed and locked in the closed position, the apparatus comprising:

3 a) a slip equipped elevator with linkage that moves in sympathy with movement of the slips
4 between a slips open position and a slips closed position;

5 b) a lock enabling means, situated on the elevator, and attached to said linkage for
6 sympathetic movement therewith, and arranged such that locking the enabling means locks
7 the slips in at least one preselected position;

8 c) lock means situated to immobilize the lock enabling means when the slips are in at least
9 one preselected position;

10 d) a wireless signal transmitter on the elevator, responsive to the lock means, to transmit a
11 wireless signal when the slips are locked in the preselected position; and

12 e) a receiver located on the drilling rig, remote from the elevator, arranged to receive the
13 signal and produce a visible indication that the signal has been received.

 8. The apparatus of claim 7 wherein said visible is a condition processable by automatic driller controls.

 9. The apparatus of claim 7 wherein said wireless signal is a radio frequency electromagnetic transmission.

 10. The apparatus of claim 7 wherein said wireless signal is an electromagnetic transmission in the infra-red range of the spectrum.

 11. The apparatus of claim 7 wherein said wireless signal is sonic.

 12. The apparatus of claim 11 wherein said wireless signal is a sound transmission with a frequency greater than 21,000 Hertz.

1 13. The apparatus of claim 7 wherein said lock means, once moved toward the lock position,
2 remains biased toward the lock position until the lock enabling means is in the lockable position, the
3 signal being withheld until the lock enabling means is locked in the slip closed position.

14. The apparatus of claim 7 wherein said wireless signal transmitter is battery operated with
the battery carried by the elevator.